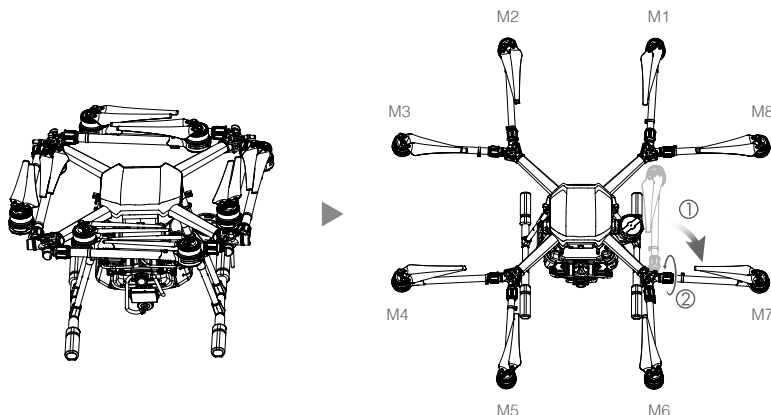


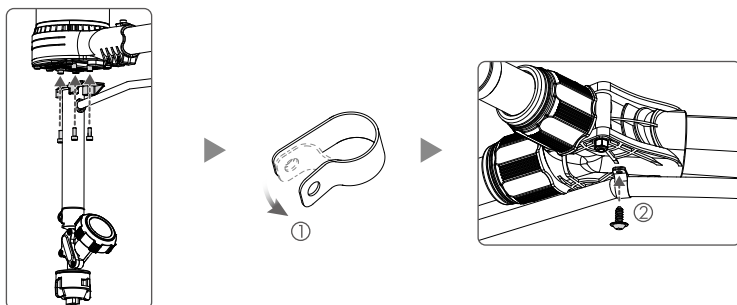
Unfolding the Frame Arms

1. Unfold the frame arms ① and tighten the two arm sleeves at each of the junctions ②.
2. Identify the position and rotational direction of the motors. The top view shows motors M1 to M8 arranged in a counter-clockwise order, with motors M1 and M2 at the front of the aircraft, and motors M5 and M6 at the rear. Motors M1, M3, M5 and M7 rotate counter-clockwise as indicated by the "CCW" mark, while motors M2, M4, M6 and M8 rotate clockwise as indicated by the "CW" mark.

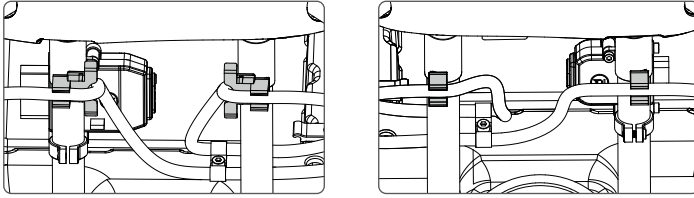


Mounting the Sprinklers

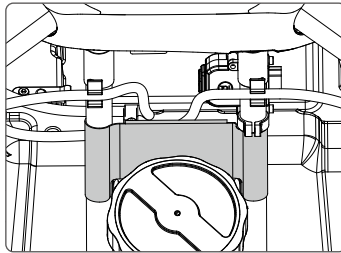
1. Mount the sprinklers with white hoses under motors M3 and M8. Mount the sprinklers with black hoses under motors M4 and M7. Mount each of the four sprinklers using three M3x5 screws.
2. Prepare hose clamps B and T3x8 screws to fix the hoses to the frame arms.
 - ① Open hose clamps B to an appropriate angle gently. DO NOT over-stretch the clamps to avoid damage.
 - ② Clip the clamps around the hoses at the position that needs to be fixed. Ensure that the flat side of the clamp is close to the bottom of the frame arm junction and tighten the T3x8 screw.



3. Insert the hoses on both sides into the clips on the landing gear.

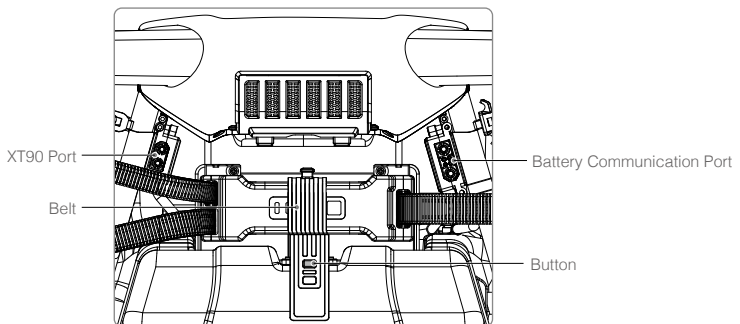


4. Mount the fender to the right landing gear leg to avoid spills when pouring liquids. Handle with care to avoid damage to the fender.



Mounting the Battery

Insert the battery into the battery compartment from the front of the aircraft. Ensure the battery is securely mounted and then buckle the belt to the button of the spray tank.

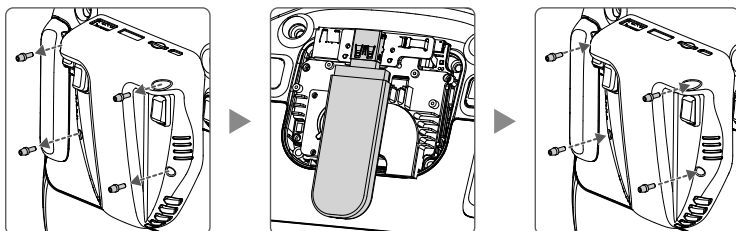


- The MG-1S / MG-1S RTK does not come with a battery. Please purchase the DJI approved MG-1S battery pack (Model: MG-12000S).
- The voltage on the aircraft can reach 50.4 V. Read the battery's safety guidelines and take necessary precautions when handling the battery to ensure your own safety.

Mounting the USB Stick

The USB stick is used for the display device of the remote controller to allow access to specific networks (such as connecting to the DJI Agriculture Management Platform, etc.). Be sure to mount it correctly onto the remote controller, or else the related services cannot be used.

1. Remove the four screws and the cover on the back of the remote controller.
2. Insert the SIM card into the USB stick correctly and then connect the USB stick to the USB port inside the remote controller. Test to ensure that they function properly.*
3. Re-mount the cover and tighten the screws.





- Be sure to use a DJI approved USB stick.
- Use the USB stick and the SIM card according to their manuals.

* Test procedure: Press once, again and hold the power button of the remote controller to turn it on. Go to DJI MG app > ⚙️ > Network Diagnostics. If the "DJI Agriculture Management Platform" is "Normal", it indicates that the USB stick and SIM card are working properly.

Remote Controller

Profile

The aircraft remote control system operates at 2.4 GHz. It includes a dedicated, Android-based display that runs the DJI MG app independently for operation planning and aircraft status display. Additional controls include spraying system control buttons, dials, and an operation mode switch to help complete tasks in each operation mode.

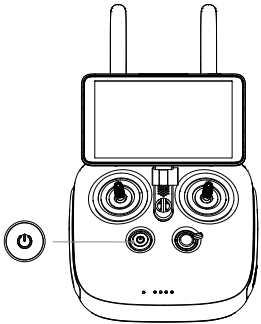
-  Stick mode can be set to Mode 1, Mode 2, and Mode 3, or to a custom mode in the DJI MG app.
-  Avoid using wireless devices that use the same 2.4 GHz frequency band as the remote controller. To prevent transmission interference, do not operate more than three aircraft in the same area.

Using the Remote Controller

Turning the Remote Controller On and Off

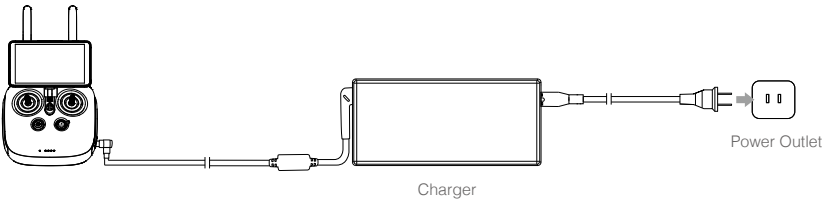
The remote controller is powered by a 6000 mAh 2S rechargeable battery. The battery level is indicated via the Battery Level LEDs on the front panel. Follow the steps below to turn on your remote controller:

1. When the remote controller is turned off, press the Power button once to check the current battery level, indicated by the Battery Level LEDs. If the battery level is too low, recharge before use.
2. Press the Power button once. Then press and hold to turn on the remote controller.
3. The remote controller will beep when turned on. The Status LED will rapidly blink green, indicating that the remote controller is linking to the aircraft. They will glow solid green when linking is complete.
4. Repeat Step 2 to turn off the remote controller.



Charging the Remote Controller

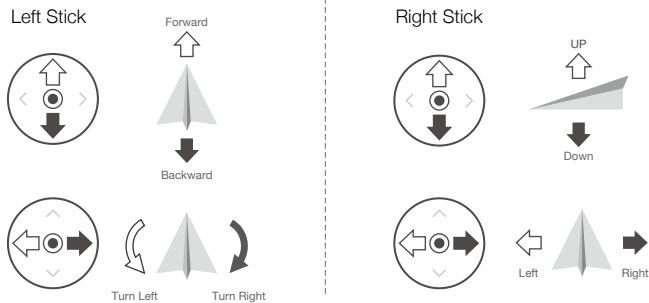
Charge the remote controller using the included charger. Refer to the figure below for more details:



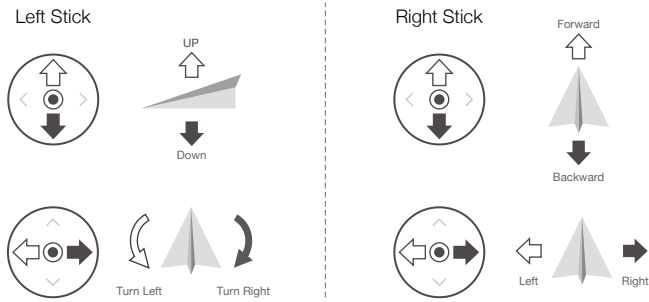
Operating the Aircraft

This section explains how to control the orientation of the aircraft through the remote controller. Control can be set to Mode 1, Mode 2 or Mode 3, or to a custom mode.

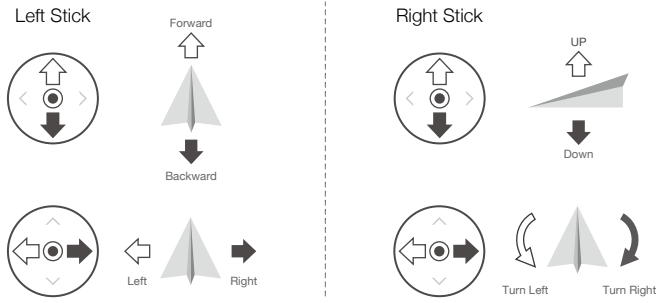
Mode 1




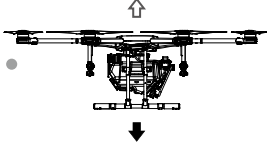

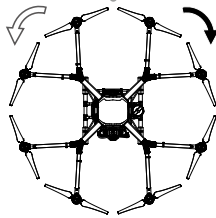

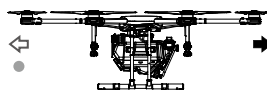


Mode 2



Mode 3






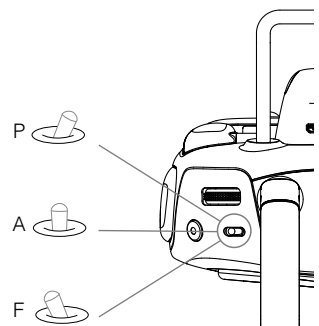
For example, the following description uses Mode 2:

Remote Controller (Mode 2)	Aircraft (● Indicates nose direction)	Remarks
		Throttle Stick: Vertical movement of the left stick controls the aircraft's elevation. Push up to ascend and push down to descend. Use the left stick to take off when the motors are spinning at idle speed. The aircraft will hover in place if the stick is in the center position. The farther the stick is pushed away from the center position, the faster the aircraft will change elevation.
		Yaw Stick: Horizontal movement of the left stick controls the aircraft's heading. Push left to rotate the aircraft counterclockwise and push right to rotate clockwise. The aircraft will hover in place if the stick is in the center position. The farther the stick is pushed away from the center position, the faster the aircraft will rotate.
		Pitch Stick: Vertical movement of the right stick controls the aircraft's pitch. Push up to fly forwards and press down to fly backwards. The aircraft will hover in place if the stick is in the center position. Push the stick farther for a larger pitch angle and faster flight.
		Roll Stick: Horizontal movement of the right stick controls the aircraft's roll. Push the stick left to fly left and right to fly right. The aircraft will hover in place if the stick is in the central position. Push the stick farther for a larger roll angle and faster flight.

Flight Mode Switch

Toggle the Flight Mode switch on the remote controller to one of the three following modes:

Figure	Flight Mode
	P-mode (Positioning)
	A-mode (Attitude)
	F-mode (Function)



P-mode (Positioning): The aircraft uses GNSS for positioning. In P-mode, users can start the motors when the GNSS signal is strong.

A-mode (Attitude): GNSS is not used for positioning, and aircraft can only maintain altitude using the barometer. Aircraft can still record its position and return to the Home Point if a GNSS signal is present.

F-mode (Function): Plan tasks in advance in the DJI MG app. The aircraft will automatically perform the selected task after entering F-mode.

The aircraft will always fly in F-mode by default after powering on regardless of the Flight Mode switch position. If the Flight Mode switch is at P or A when powered off, set the switch to any other position and then to P or A after powering on the aircraft to use P-mode or A-mode.

Atti Mode Warning

The aircraft will enter A-mode in the following two instances:

Passive: When there is weak GPS signal or when the compass experiences interference.

Active: Users toggle the flight mode switch to A-mode.

In A-mode, some advanced features are disabled. Therefore, the aircraft cannot position in this mode and is easily affected by its surroundings, which may result in horizontal shifting. Use the remote controller to position the aircraft.

Maneuvering the aircraft in A-mode can be difficult. Before switching the aircraft into A-mode, make sure you are comfortable flying in this mode. DO NOT fly the aircraft too far away as you might lose control and cause a potential hazard.

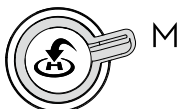
Avoid flying in areas where GPS signal is weak, or in confined spaces. The aircraft will otherwise be forced to enter A-mode, leading to potential flight hazards, please land it in a safe place as soon as possible.

Operation Mode Switch

In P-mode, set the Operation Mode switch on the remote controller to one of the three modes.



Smart Operation Mode (S)



Manual Operation Mode (M)

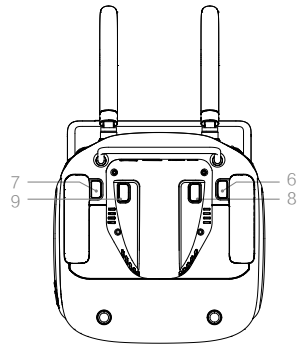
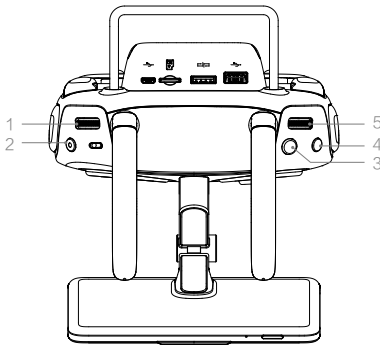


Manual Plus Operation Mode (M+)

- 1. Smart operation mode (S):** When the aircraft is in P-mode and the GNSS signal is strong, set the switch to this mode after recording Points A and B. The aircraft will fly and spray liquid along the specified route. The DJI MG app will display "A-B Route."
- 2. Manual operation mode (M):** Users can control all the movements of the aircraft and spray liquid via the Spray, C3, and C4 buttons. The DJI MG app will display "Manual Route."
- 3. Manual Plus operation mode (M+):** Users can control the movement of the aircraft, but flying speed is restricted and heading is locked. Press the C1 or C2 buttons and the aircraft will fly one line spacing to the left/right. The DJI MG app will display "M+ Route."

Controlling the Spraying System

Complete a task remotely via the Spray Rate or Settings dials, or the Spray, A/B, and C1/C2/C3/C4 buttons.



1. Spray Rate Dial

In Manual or Manual Plus operation mode, turn left to reduce and right to increase the spray rate¹. The DJI MG app will indicate the current spray rate.

2. Spray Button

In Manual operation mode, press to start or stop spraying.

3. A Button

Press to record Point A of the Smart operation route.

4. B Button

Press to record Point B after recording Point A.

5. Settings Dial

In Smart operation mode or F-mode, turn to adjust work efficiency, including flying speed and spray rate.

6. C1 Button

In Smart operation mode, press to choose operation route L, after recording Point A and B.

In Manual Plus operation mode, press to fly the aircraft one line spacing to the left.

During Field Plan² press to start or end obstacle measurement if you want to mark an obstacle in the operating area.

7. C2 Button

In Smart operation mode, press to choose operation route R, after recording Point A and B.

In Manual Plus operation mode, press to fly the aircraft one line spacing to the right.

During Field Plan, walk along the operating area or obstacle and press to add a waypoint.

In Smart operation mode, when the aircraft is hovering at a turning point, press the C1 and C2 buttons simultaneously to fly to the next turning point and hover. Press and hold the C1 and C2 buttons simultaneously for 2 to 4 seconds and the remote controller will beep to enter or quit Continuous Smart operation mode. Refer to [Smart Operation Mode \(p. 32\)](#) for more details.

¹ Spray rate may vary according to the nozzle model and viscosity of the liquid. When using water, four XR11001 nozzles spray at a minimum rate of 1.2 L/min, and maximum 1.8 L/min.

² When the remote controller is not connected to the aircraft, "Field Plan" will display on the DJI MG main interface. Tap the C1 button to enter Operation View for route planning. Refer to [Intelligent Operation Planning System \(p. 30\)](#) for details.

8. C3 Button

In Manual Mode, press to spray liquid with the two front sprinklers only.
During Field Plan, walk to the desired calibration point and press to add the point.

9. C4 Button

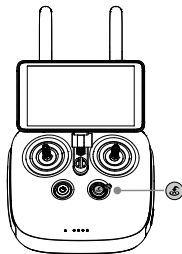
In Manual mode, press to spray liquid with the two back sprinklers only.

The table below is a summary for how to control the spraying system via the remote controller in different modes.

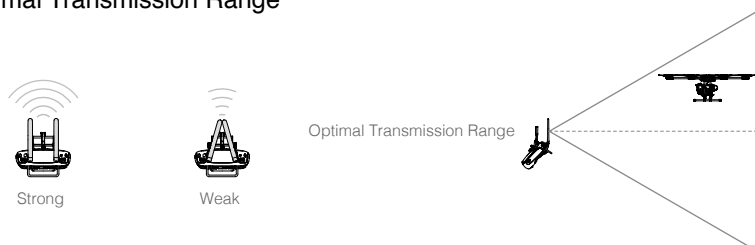
Mode	Spray Rate Dial	Spray Button	Settings Dial	C1 Button	C2 Button	C3 Button	C4 Button
Smart operation mode	/	/	Adjust work efficiency	Press simultaneously to fly to the next turning point and hover. Press and hold simultaneously for 2-4 seconds and the remote controller will beep to enter or quit Continuous Smart operation mode.		/	/
Manual operation mode	Adjust spray rate	Start or stop spraying	/	Choose operation route L for Smart Operation mode	Choose operation route R for Smart Operation mode	Spray with only the two front sprinklers	Spray with only the two back sprinklers
Manual Plus operation mode	Adjust maximum spray rate	/	Adjust maximum flying speed	Fly the aircraft one line spacing to the left	Fly the aircraft one line spacing to the right	/	/
F-mode	/	/	Adjust work efficiency	/	/	/	/
Field Plan	/	/	/	Start or end obstacle measurement	Add a waypoint.	Add the calibration point	/

RTH Button

Press and hold the RTH button to bring the aircraft back to the last recorded Home Point. The LED around the RTH Button will blink white during RTH procedure. During ascent and descent, users can control all aircraft movement. Users can control aircraft heading while it flies to the Home Point. Press this button again to cancel RTH and regain control of the aircraft.

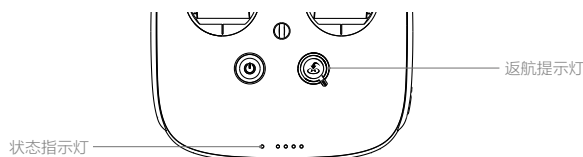


Optimal Transmission Range



Signal transmission between the aircraft and remote controller performs best when the aircraft is within optimal transmission range. Unfold the antennas on the remote controller to optimize transmission range. Ideally, the flat surface of the antennas should be facing the aircraft. If the signal is weak, fly the aircraft closer to you.

Remote Controller LEDs




The Status LED indicates the connection status between the remote controller and the aircraft. The RTH Status LED indicates the Return to Home status of the aircraft. See the table below for details on these indicators:

Status LED	Sound	Remote Controller Status
— Solid Red	♪ chime	The remote controller is not connected to the aircraft.
— Solid Green	♪ chime	The remote controller is connected to the aircraft.
..... Blinks Red	Repeating slow beep	Remote controller error.
RTH Status LED	Sound	Aircraft Status
— Solid White	♪ chime	Return to Home procedure is initiated.
..... Blinking white	Repeating single beep	Sending Return to Home command to the aircraft.
..... Blinking white	Repeating double beep	The aircraft is returning to the Home Point.


Linking the Remote Controller

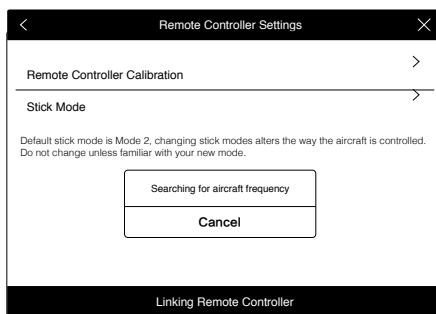
The remote controller is linked to your aircraft by default. Linking is only required when using a new remote controller for the first time.

Before linking, go to Operation View in the DJI MG app > ●●● >  > Connected DJI Device Type. Make sure to choose "MG-1S". Then follow these steps to link a new remote controller:

1. There are two methods to enter linking status:

Method 1: Via the DJI MG app

- a. Power on the remote controller and open the DJI MG app. Power on the aircraft.
- b. Tap Field Plan to enter Operation View > ●●● > , then tap Linking RC.
- c. A window will indicate that the remote controller has initiated linking.



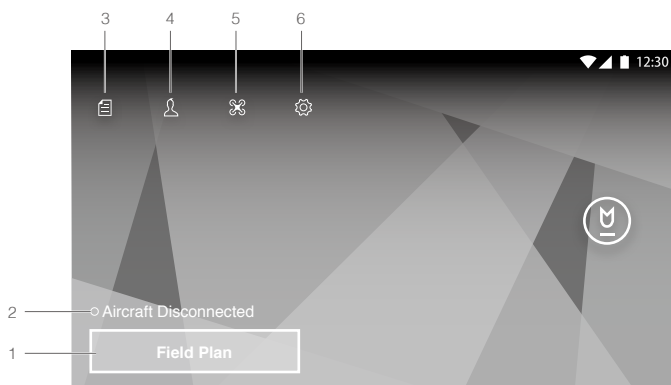
Method 2: Via the buttons on the remote controller

- a. Power on the remote controller, and then the aircraft.
 - b. Press and hold the C1, C2, and Spray buttons simultaneously until the remote controller beeps once, and then twice. While pressing and holding the C1, C2, and Spray buttons, press the Settings dial.
2. The Status LED blinks blue and the remote controller sounds double beep repeatedly, indicating that the remote controller is ready for linking.
 3. Press and hold the Link button on the aircraft for 3 seconds or until the Link LED blinks red and green alternately. Release the button and wait for a few seconds.
 4. The Status and Link LED will glow solid green if linking is successful.
If the Link LED does not glow solid green, linking failure occurred. Enter linking status again and retry.

The DJI MG App

The DJI MG app is designed for agricultural applications and is able to display the system status and configure various settings. After planning a task via the app's intelligent operation planning system, the aircraft can operate automatically following the produced flight route when in F-mode.

Main Interface



1. Field Plan / Start Task

Field Plan: When the aircraft is not connected, tap to enter Operation View for task planning.

Start: After the aircraft is connected, tap to enter Operation View to perform planned tasks or view the aircraft status and configure settings.

2. Aircraft Connection Status

○ : Shows whether the aircraft or D-RTK Handheld Mapper is connected to the remote controller.

3. Task Management

📁 : Manage your tasks here, including uploading local tasks to the DJI Agriculture Management Platform and downloading tasks from it.

4. User Info

👤 : View user information of the account logged in.

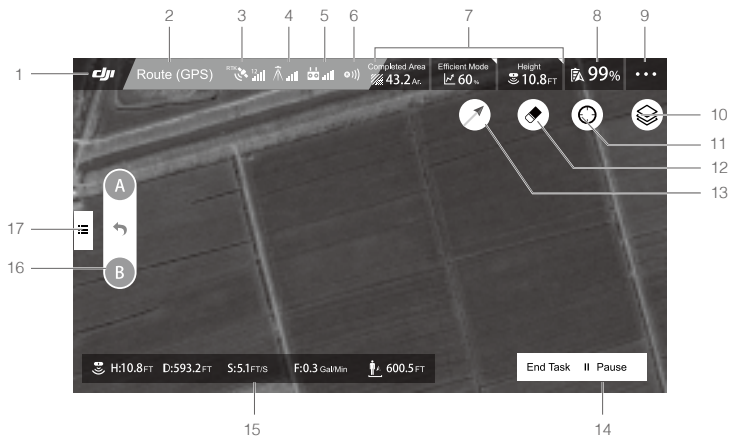
5. Aircraft Info

⚙️ : View the information of the connected aircraft and manuals.

6. General Settings

⚙️ : Tap for settings such as units of measurement, offline map, cellular data statistics, and network diagnosis.

Operation View



1. Main Interface

DJI : Tap this icon to return to the main interface.

2. System Status

Route (GPS) : Indicates current flight modes, operation modes, and warning messages.

3. GNSS Status

RTK : Shows the current GNSS signal strength and number of satellites connected. When using RTK data, "RTK" will appear in the upper left corner.

4. RTK Status

Icons displayed when using RTK data.

RTK : Displays RTK signal strength when using the D-RTK Base Station.

RTK : Indicates that the connection with the D-RTK Base Station is abnormal. Refer to the prompts in the app.

5. Remote Controller Signal

RC : Shows the signal strength of the remote controller.

6. Obstacle Avoidance Radar Status

AR : Shows the working status of the Obstacle Avoidance Radar.


7. Operation Parameters


Shows parameters of current spraying operation. The display will vary according to flight and operation mode.


PA : Plan Area — Shows the Plan Area value when planning tasks via the intelligent operation planning system.

CA : Completed Area — Shows the completed area value in Route or A-B Route mode.

WTE : Work Type and Efficiency — Shows work type and efficiency settings in Route or A-B Route mode. Tap to set Pesticide Usage for Spray, choose Efficient or Intensive mode, and use the slider to adjust work efficiency. You can also adjust work efficiency via the Settings dial on the remote controller.


 : Height — When Radar Terrain Follow System is enabled, shows the preset height between the aircraft and the object under it. Appears in all modes except Manual operation mode. Tap to adjust the height.

 : Spacing Line — shows the preset distance when flying left or right in A-B Route or M+ mode. Tap to adjust the value.

 : Flow Rate — In M+ mode, shows the current pesticide flow rate. Tap to adjust the value. You can also adjust flow rate via the Spray Rate dial on the remote controller.


 : Work Speed — Shows the maximum flying speed in M+ mode. Tap to adjust the value.


8. Battery Level


 99% : Shows the current battery level. Tap to set the Low Battery Warning threshold and view battery information.

9. More Settings

••• : Tap to enter the extended menu to view and adjust the parameters of all other settings.

 : Aircraft Settings — Includes safety distance, ascend without pesticide, advanced settings, etc.

 : MC Parameter Settings — Includes Home Point settings, Return to Home altitude, maximum altitude, distance limit, RC signal lost, advanced settings, etc.


 : RC Settings — Includes Connect DJI Device Type, RC calibration, exchange functions for remote controller buttonsstick mode, and linking RC.

RTK : RTK Settings — Includes RTK satellite status, and RTK module switch.

 : Aircraft Battery — Includes Low Battery Warning, battery information, etc.

••• : General Settings — Includes map settings, flight route display, etc.


10. Map Mode

 : Tap to switch among Standard, Satellite, or Night modes.


11. Location

 : Tap to center the map around the aircraft's location or the latest recorded Home Point.

12. Clear Screen

 : Tap to clear the flight path currently shown on the map.


13. Location Follow

 : Tap to center the map around the aircraft's location at all times, following its location update.

14. Task Control Buttons

Buttons to control during different task types, including measure a work area, use, start, pause, or end a task, etc.

15. Flight Parameters

 H: When the Radar Terrain Follow System is enabled, shows the preset height between the aircraft and the object underneath it.



D: Horizontal distance from the aircraft to the Home Point.


S: Flying speed.

F: Pesticide flow rate.

 : The horizontal distance between the aircraft and the operator.

16. Point A / B

 A /  B : Tap to record Point A or B. The color of the icon will change from grey to purple to indicate successful recording.

 : Tap to clear the recorded Point A or B.

17. Task List

 : In Route mode, tap to list all the planned route tasks. Choose the desired task from the list.

Intelligent Operation Planning System

After the operation area and obstacles have been measured, and calibration points have been added by using the remote controller or DJI D-RTK Handheld Mapper (for MG-1S RTK only), the DJI MG app uses a built-in Intelligent Operation Planning System to produce a flight route based on the user's input. Users can edit the planned task for flight path adjustment in the app. In F-mode, the aircraft can operate automatically, following the generated flight route. Refer to the instructions below or watch the video tutorial on the official DJI website to use the Intelligent Operation Planning System and perform tasks. (<http://www.dji.com/mg-1s/info#video>).



Ensure that the aircraft is powered off when planning your flight route.

Field Planning

Users can plan the field by using the remote controller or DJI D-RTK Handheld Mapper (for MG-1S RTK only).

Using the Remote Controller

1. Power on the remote controller and enter the DJI MG app.
2. Tap Field Plan in the lower left corner of the screen to enter Operation View.
3. Wait until GNSS signal is strong. Positioning accuracy will be about ± 2 meters.
4. Tap Start Measuring in the lower right corner of the screen. Walk along the edge of the target field. Tap "Add Waypoint C2" or press Button C2 on the back of the remote controller at each corner of the field.
5. Mark any obstacles:

Use two methods below to mark obstacles if there is any in the target field.

 - ① Tap Start Obstacle Measurement C1 onscreen or press the C1 button on the back of the remote controller, walk around the obstacle, and then tap End Obstacle Measurement C1 onscreen or press the C1 button again.
 - ② Tap Start Obstacle Measurement C1 onscreen or press the C1 button on the back of the remote controller, walk around the obstacle, and tap Add Waypoint C2 onscreen or press the C2 button to add waypoints. Tap End Obstacle Measurement C1 onscreen or press the C1 button when finished.
6. Continue measuring the field by walking along the edge and adding waypoints at each corner of the field. Tap End Measurement when the field has been measured and all obstacles have been marked. The DJI MG app will produce a flight route according to the field's perimeter and obstacles.
7. Add calibration point(s): Walk to the location of each calibration point. Tap Add Calibration Point C3 onscreen or press the C3 button on the back of the remote controller.

The calibration points are used to offset the bias of the flight route caused by the positioning difference between the remote controller and aircraft. Choose at least one existing landmark as the fixed reference point(s) for calibration when executing the same task. If none are available, use an easily identifiable object, such as a metal stake.

Using the DJI D-RTK Handheld Mapper (for MG-1S RTK only)

Refer to the D-RTK Handheld Mapper User Guide to complete field planning, then choose the corresponding task in the DJI MG app.